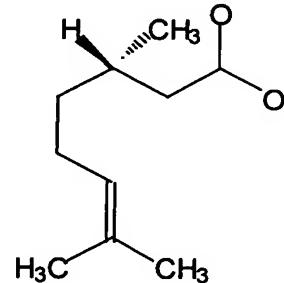
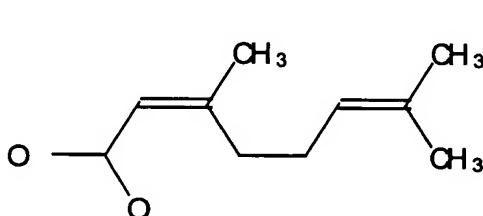


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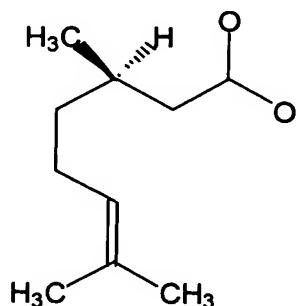
International Patent Application No. PCT/EP03/12105
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 PCT1957KGJHjki

New Patent Claims 1 to 30

1. Use of at least one acetal or semi-acetal of an acyclic terpene (C_{10}), wherein the acetal or semi-acetal radicals in each case themselves represent a terpene radical (C_{10}), as insect repellent.
2. Use according to Claim 1, wherein the acetal or semi-acetal radicals are in each case saturated.
3. Use according to Claim 1, wherein the acetal or semi-acetal radicals are in each case single or double unsaturated.
4. Use according to one of the above claims, wherein the terpene (C_{10}) exhibits one of the following structures:



5. Use according to Claim 4, wherein the terpene (C_{10}) exhibits the following structure:



6. Use according to Claim 1, wherein the acetal is a cis-3,7-dimethyl-2,6-octadienal-trans-3,7-dimethyl-2,6-octadienyl-acetal (neral geranylacetal, Structure 5a) or a cis-3,7-dimethyl-2,6-octadienal-di(trans-3,7-dimethyl-2,6-octadienyl)-acetal (neral digeranylacetal, Structure 5b).
7. Use according to Claim 1, wherein the octadienal octadienylacetal is a cis-3,7-dimethyl-2,6-octadienal-R-(-)-3,7-dimethyl-1,6-octadien-3-yl-acetal (neral-(-)-linalylacetal, Structure 6a) or a cis-3,7-dimethyl-2,6-octadienal-di(R-(-)-3,7-dimethyl-1,6-octadien-3-yl)-acetal (neral di-(-)-linalylacetal, Structure 6b).
8. Use according to Claim 1, wherein the octadienal octadienylacetal is a cis-3,7-dimethyl-2,6-octadienal-cis-3,7-dimethyl-2,6-octadienyl-acetal (neral nerylacetal, Structure 7a) or a cis-3,7-dimethyl-2,6-octadienal-di(cis-3,7-dimethyl-2,6-octadienyl)-acetal (neral dinerylacetal, Structure 7b).
9. Use according to Claim 1, wherein the octadienal octadienylacetal is a trans-3,7-dimethyl-2,6-octadienal-trans-3,7-dimethyl-2,6-octadienyl-acetal (geranial geranylacetal, Structure 8a) or a trans-3,7-dimethyl-2,6-octadienal-di(trans-3,7-dimethyl-2,6-octadienyl)-acetal (geranial digeranylacetal, Structure 8b).
10. Use according to Claim 1, wherein the octadienal octadienylacetal is a trans-3,7-dimethyl-2,6-octadienal-R-(-)-3,7-dimethyl-1,6-octadien-3-yl-acetal (geranial-(-)-linalylacetal, Structure 9a) or a trans-3,7-dimethyl-2,6-octadienal-di(R-(-)-3,7-dimethyl-1,6-octadien-3-yl)-acetal (geranial di-(-)-linalylacetal, Structure 9b).
11. Use according to Claim 1, wherein the octadienal octadienylacetal is a trans-3,7-dimethyl-2,6-octadienal-cis-3,7-dimethyl-2,6-octadienyl-acetal (geranial nerylacetal, Structure 10a) or a trans-3,7-dimethyl-2,6-octadienal-di(cis-3,7-dimethyl-2,6-octadienyl)-acetal (geranial dinerylacetal, Structure 10b).

12. Use according to Claim 1, wherein the octenal octadienylacetal is an R-(+)-3,7-dimethyl-6-octenal-trans-3,7-dimethyl-2,6-octadienyl-acetal ((+)-citronellal geranylacetal, Structure 11a) or an R-(+)-3,7-dimethyl-6-octenal-di(trans-3,7-dimethyl-2,6-octadienyl)-acetal ((+)-citronellal digeranylacetal, Structure 11b).
13. Use according to Claim 1, wherein the octenal octadienylacetal is an R-(+)-3,7-dimethyl-6-octenal-R(-)-3,7-dimethyl-1,6-octadien-3-yl-acetal ((+)-citronellal-(-)-linalylacetal, Structure 12a) or an R-(+)-3,7-dimethyl-6-octenal-di(R(-)-3,7-dimethyl-1,6-octadien-3-yl)-acetal ((+)-citronellal di(-)-linalylacetal, Structure 12b).
14. Use according to Claim 1, wherein the octenal octadienylacetal is an R-(+)-3,7-dimethyl-6-octenal-cis-3,7-dimethyl-2,6-octadienyl-acetal ((+)-citronellal nerylacetal, Structure 13a) or an R-(+)-3,7-dimethyl-6-octenal-di(cis-3,7-dimethyl-2,6-octadienyl)acetal ((+)-citronellal dinerylacetal, Structure 13b).
15. Use according to Claim 1, wherein the octenal octadienylacetal is an S-(-)-3,7-dimethyl-6-octenal-trans-3,7-dimethyl-2,6-octadienyl-acetal ((-)-citronellal geranylacetal, Structure 14a) or an S-(-)-3,7-dimethyl-6-octenal-di(trans-3,7-dimethyl-2,6-octadienyl)-acetal ((-)-citronellal digeranylacetal, Structure 14b).
16. Use according to Claim 1, wherein the octenal octadienylacetal is an S-(-)-3,7-dimethyl-6-octenal-R(-)-3,7-dimethyl-1,6-octadien-3-yl-acetal ((-)-citronellal-(-)-linalylacetal, Structure 15a) or an S-(-)-3,7-dimethyl-6-octenal-di(R(-)-3,7-dimethyl-1,6-octadien-3-yl)-acetal ((-)-citronellal di(-)-linalylacetal, Structure 15b).
17. Use according to Claim 1, wherein the octenal octadienylacetal is an S-(-)-3,7-dimethyl-6-octenal-cis-3,7-dimethyl-2,6-octadienyl-acetal ((-)-citronellal nerylacetal, Structure 16a) or an S-(-)-3,7-dimethyl-6-octenal-di(cis-3,7-dimethyl-2,6-octadienyl)acetal ((-)-citronellal dinerylacetal, Structure 16b).

18. Use according to Claim 1, wherein the octenal octenylacetal is an R-(+)-3,7-dimethyl-6-octenal-R-(+)-3,7-dimethyl-6-octenyl-acetal ((+)-citronellal-(+)-citronellylacetal, Structure 17a) or an R-(+)-3,7-dimethyl-6-octenal-di(R-(+)-3,7-dimethyl-6-octenyl)-acetal ((+)-citronellal di-(+)-citronellylacetal, Structure 17b).
19. Use according to Claim 1, wherein the octenal octadienylacetal is an R-(+)-3,7-dimethyl-6-octenal-S-(-)-3,7-dimethyl-6-octenyl-acetal ((+)-citronellal-(-)-citronellylacetal, Structure 18a) or an R-(+)-3,7-dimethyl-6-octenal-di(S-(-)-3,7-dimethyl-6-octenyl)-acetal ((+)-citronellal di-(-)-citronellylacetal, Structure 18b).
20. Use according to Claim 1, wherein the octenal octenylacetal is an S-(-)-3,7-dimethyl-6-octenal-R-(+)-3,7-dimethyl-6-octenyl-acetal ((-)-citronellal-(+)-citronellylacetal, Structure 19a) or an S-(-)-3,7-dimethyl-6-octenal-di(R-(+)-3,7-dimethyl-6-octenyl)-acetal ((-)-citronellal di-(+)-citronellylacetal, Structure 19b).
21. Use according to Claim 1, wherein the octenal octadienylacetal is an S-(-)-3,7-dimethyl-6-octenal-S-(-)-3,7-dimethyl-6-octenyl-acetal ((-)-citronellal-(-)-citronellylacetal, Structure 20a) or an S-(-)-3,7-dimethyl-6-octenal-di(S-(-)-3,7-dimethyl-6-octenyl)-acetal ((-)-citronellal di-(-)-citronellylacetal, Structure 20b).
22. Use according to Claim 1, wherein the octadienal octadienylacetal is a cis-3,7-dimethyl-2,6-octadienal-R-(+)-3,7-dimethyl-6-octenyl-acetal (neral-(+)-citronellylacetal, Structure 21a) or a cis-3,7-dimethyl-2,6-octadienal-di(R-(+)-3,7-dimethyl-6-octenyl)-acetal (neral di(+)-citronellyl acetal, Structure 21b).
23. Use according to Claim 1, wherein the octadienal octadienylacetal is a trans-3,7-dimethyl-2,6-octadienal-R-(+)-3,7-dimethyl-6-octenyl-acetal (geranial-(+)-citronellylacetal, Structure 22a) or a trans-3,7-dimethyl-2,6-octadienal-di(R-(+)-3,7-dimethyl-6-octenyl)-acetal (geranial di(+)-citronellyl acetal, Structure 22b).

24. Use according to Claim 1, wherein the octadienal octadienylacetal is a cis-3,7-dimethyl-2,6-octadienal-S-(-)-3,7-dimethyl-6-octenyl-acetal (neral-(-)-citronellyl acetal, Structure 23a) or a cis-3,7-dimethyl-2,6-octadienal-di(S-(-)-3,7-dimethyl-6-octenyl)-acetal (neral di(-)-citronellyl acetal, Structure 23b).
25. Use according to Claim 1, wherein the octadienal octadienylacetal is a trans-3,7-dimethyl-2,6-octadienal-S-(-)-3,7-dimethyl-6-octenyl-acetal (geranial-(-)-citronellyl acetal, Structure 24a) or a trans-3,7-dimethyl-2,6-octadienal-di(S-(-)-3,7-dimethyl-6-octenyl)-acetal (geranial di(-)-citronellyl acetal, Structure 24b).
26. Use according to one of the above claims, containing also a saturated or unsaturated, aliphatic carboxylic acid C1 - C12, especially preferably octanoic acid (caprylic acid) and decanoic acid (capric acid).
27. Use according to one of the above claims, containing also a benzoate, preferably trans-3,7-dimethyl-2,6-octadienyl benzoate (geranyl benzoate, Structure 45), cis-3,7-dimethyl-2,6-octadienyl benzoate (neryl benzoate, Structure 46), R-(-)-3,7-dimethyl-1,6-octadien-3-yl benzoate ((-)-linalyl benzoate, Structure 47), R-(+)-p-menth-1-en-8-yl benzoate ((+)-terpinyl benzoate, 48), S-(-)-p-menth-1-en-8-yl benzoate ((-)-terpinyl benzoate, 49), R-(+)-3,7-dimethyl-6-octenyl benzoate ((+)-citronellyl benzoate, 50), S-(-)-3,7-dimethyl-6-octenyl benzoate ((-)-citronellyl benzoate, 51) or free benzoic acid or a mixture of these compounds.
28. Use according to one of the above claims, containing also a p-mentha-3,8-diol, preferably cis-p-mentha-3,8-diol (cis-isopulegol hydrate, Structure 52) or trans-p-mentha-3,8-diol (trans-isopulegol hydrate, Structure 53) or a mixture of them.
29. Use according to one of the above claims, containing also a hydroxy octanal, preferably R-(+)-3,7-dimethyl-7-hydroxy octanal ((+)-citronellal hydrate, Structure 54) or an S-(-)-3,7-dimethyl-7-hydroxy octanal ((-)-citronellal hydrate, Structure 55) or a mixture of them.

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30. Use according to one of the above claims, containing also (2^E,4aR^E,7R,8aR^E,-2-((R)-2,6-dimethylhept-5-enyl)-4,4,7-trimethylhexohydro-benzo[1,3]dioxin (trans-(+)-citronellal-p-mentha-3,8-diylacetal, Structure 56) or (2^E,4aR^E,7R,8aS^E,-2-((R)-2,6-dimethylhept-5-enyl)-4,4,7-trimethylhexohydro-benzo[1,3]dioxin (cis-(+)-citronellal-p-mentha-3,8-diylacetal, Structure 57) or (2^E,4aR^E,7R,8aR^E,-2-((S)-2,6-dimethylhept-5-enyl)-4,4,7-trimethylhexohydro-benzo[1,3]dioxin (trans-(-)-citronellal-p-mentha-3,8-diylacetal, Structure 58) or (2^E,4aR^E,7R,8aS^E,-2-((S)-2,6-dimethylhept-5-enyl)-4,4,7-trimethylhexohydro-benzo[1,3]dioxin (cis-(-)-citronellal-p-mentha-3,8-diylacetal, Structure 59) or containing a mixture of them.